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TITLE

INFORMATION MEMORY DEVICE



ABSTRACT: PURPOSE: To provide an auxiliary power source built-in memory device having long life and compact size by incorporating all solid state secondary batteries in a resin package.

> CONSTITUTION: A solid state unit cell 1 measuring 5×5×0.8mm and a semiconductor memory device chip 2 are fixed on the both sides of a lead frame 3, and electrodes 5 for connecting unit cells in series are arranged, and they are incorporated in a resin package 6 which also serves as a battery container. A unit cell pellet consists of a positive layer 7 comprising positive mix of the mixture of Cu<sub>0.6</sub>V<sub>2</sub>O<sub>5</sub> powder and Cu ion conductive electrolyte of RbCu<sub>4</sub>I<sub>1.5</sub>Cl<sub>3.5</sub> powder and graphite, an electrolyte layer 8 comprising Cu ion conductive solid electrolyte of RbCu<sub>4</sub>I<sub>1.5</sub>Cl<sub>3.5</sub>, and a negative layer 9 comprising negative mix of the mixture of Cu<sub>2</sub>S powder, Cu powder, and Cu ion conductive solid electrolyte RbCu<sub>4</sub>I<sub>1.5</sub>Cl<sub>3.5</sub> powder. By packaging together memory device and batteries, volatile memory device which loses memory stored when it is separated from power source can be converted into vertual nonvolatile memory device.

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